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## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 7759/MH	<b>FOR FURTHER ACTION</b>		See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/US00/23316	International filing date (day/month/year) 27/08/2000	Priority date (day/month/year) 27/08/1999	
International Patent Classification (IPC) or national classification and IPC C11D17/00			
Applicant THE PROCTER & GAMBLE COMPANY et al.			

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 8 sheets, including this cover sheet.

This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I     Basis of the report
- II     Priority
- III     Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV     Lack of unity of invention
- V     Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI     Certain documents cited
- VII     Certain defects in the international application
- VIII     Certain observations on the international application

Date of submission of the demand 15/11/2000	Date of completion of this report 16.11.2001
Name and mailing address of the international preliminary examining authority: European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Miller, B Telephone No. +49 89 2399 8540



# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/US00/23316

## I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):  
**Description, pages:**

1-72 as originally filed

### Claims, No.:

1-19 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- the language of publication of the international application (under Rule 48.3(b)).
- the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form.
- The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description,        pages:
- the claims,           Nos.:
- the drawings,        sheets:

5.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

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*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes:	Claims	14-19
	No:	Claims	1-13
Inventive step (IS)	Yes:	Claims	
	No:	Claims	1-19
Industrial applicability (IA)	Yes:	Claims	1-19
	No:	Claims	

2. Citations and explanations  
*see separate sheet*

**VI. Certain documents cited**

1. Certain published documents (Rule 70.10)

and / or

2. Non-written disclosures (Rule 70.9)

*see separate sheet*

**VII. Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:  
*see separate sheet*

**VIII. Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:  
*see separate sheet*

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**Re Item V**

**Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Novelty (Article 33(2) PCT)**

- 1.1. A method for reducing eye irritation properties of liquid compositions is not disclosed in any of the documents cited in the international search report. The subject-matter of claims 14-19 is thus novel.

However, a new use of a composition thus not automatically confer novelty to a well known composition.

- 1.2. The present application does therefore not meet the criterion set forth in Article 33(2) PCT because the subject-matter of claim 1-13 is not new in respect of the prior art as defined in the regulations (Rule 64(1)-(3) PCT).

The following documents disclose already liquid detergent composition which come within the scope of present claims 1-13.

- a) **GB-A-2 279 660** (D1) discloses a stable, pourable aqueous liquid laundry detergent composition comprising xanthan gum (a polysaccharide polymer), along with a specific pH jump system for cleaning performance and product bleach stability, in a peroxyacid-containing suspension (claim 1). In particular, the examples I-IV show compositions comprising particulate (water insoluble) peroxyacids and alkylethoxylate, xanthan gum and a polyacrylate. Each of the alkylethoxylate, xanthan gum and a polyacrylate can be regarded as a polymeric stabilization system.
- b) **US-A-3 996 152** (D2) describes a fabric bleaching composition comprising (a) water-insoluble peracid and (b) a polymer such as polycarboxy polymethylene and cellulose (claim 8).
- c) **US-A-4 992 194** (D3) exemplifies aqueous heavy duty compositions (claim 1) comprising (a) 1-40 wt.-% particulate peracid, (b) 0.1-5 wt.-% stabilizing polymer (such as neodol 25-9, Na-polyacrylate, see example 1).

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- d) EP-A-412 599 (D4) depicts peroxy acid suspensions containing polyethylene glycol, xanthum gum and hydroxycellulose (example 3, table 2). Each of the polyethylene glycol, xanthum gum and hydroxycellulose can be regarded as a polymeric stabilization system.
- e) The polymeric stabilization system used in WO-A-97/42287 (D5) is the same as used in the examples of the present application, in particular terephthalate co-polymers as disclosed in US-A-4 968 451 (examples II-IV). The examples describe liquid detergent compositions comprising fumed silica as particulate solid and said terephthalate co-polymers. Peroxidase enzymes may be used in combination with oxygen sources, e.g., percarbonate, perborate, hydrogen peroxide, etc., for "solution bleaching" or prevention of transfer of dyes or pigments removed from substrates during the wash to other substrates present in the wash solution (page 11, second paragraph).
- f) WO-A-97/43367 (D6) shows in example 8 (formulations AF and AG) liquid detergent compositions comprising acrylic polymer (polymeric stabilization system) and bentonite clay (particulate solid). A preferred feature of detergent compositions according to said document is an organic bleaching system (e.g. an organic peroxyacid, which is incorporated directly into the composition, see page 11, second paragraph).

2. **Inventive Step (Article 33(3) PCT)**

- 2.1. US-A-3 944 663 (D7), which can be regarded as the closest prior art for the subject-matter of claim 14, depicts a light duty detergent having reduced skin irritation properties comprising 10-35 wt.-% of an anionic surfactant selected from 8-18C alkyl benzene sulphonate, 8-18C alkyl sulphates containing 0-3 ethenoxy groups, 8-25C olefin sulphonates, 10-20C paraffin sulphonates, 8-9C alkyl phenol ethoxamer sulphates and their mixtures, 0.01-5% wt. of ethylene oxide homopolymer (claim 1). The composition is used for dishwashing, laundering thereby reducing the skin irritating effects of the anionic detergent (col. 1, lines 54-58; col. 5, lines 30-37).

The severity of skin irritation caused by this formulation in wash water is significantly reduced by the presence of the polyether component (col. 5, lines 30-37). The

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indication of reducing skin irritation properties is already a strong hint for the skilled person to test said polyether component also for reducing eye irritation properties of liquid compositions.

Therefore the subject-matter of present claims 14-19 lacks an inventive step over D7.

2.2. The Examining Authority can further not conclude that the subject-matter of claims 14-19 fulfils the requirement of Article 33(3) PCT.

- i) The invention as claimed should be disclosed in such a way that the technical problem, or problems, with which it deals can be appreciated and the solution can be understood. Where the means of solving the problem are obvious, the details given of its solution may, in practice, be minimal (see the PCT-Guidelines, Chapter II, 4.6; Rule 5.1(a)(iii)).

The present application comprises, on the one hand, a statement of the problem faced by the applicant (reducing eye irritation properties).

While the Examining Authority can appreciate the technical problem faced by the Applicant, the Authority cannot determine whether and in particular how the methods - defined merely by their desired result (use of a polymeric stabilization system)- are solutions to the problem so identified. Actually no evidence or indication therefor can be found in the whole application. In particular, from the examples it is not clear which compounds were really used or whether all compounds described in US-A-4 968 451 are suitable.

The skilled reader does not get any indication, in which amounts which particulate solid should be used in combination with which polymeric stabilization system in order to solve the underlying problem.

Claims 14-19 are a vague and unjustified generalization of the solution as vaguely defined on page 2 (6. paragraph) of the description and in the examples (showing compositions comprising a not identified terephthalate co-polymer and peracid), contrary to Article 6 PCT (support of the claims).

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The man skilled in the art, by the mere reading of the method defined in claims 14-19, is not able to perform the invention over the whole area claimed without undue burden and without needing inventive skill, contrary to Article 33(3) PCT.

- ii) Moreover, the present application is also devoid of any test results confirming a reduction of eye irritation properties for any defined combination of particulate solid and polymeric stabilization polymer. Not even for the exemplified formulations any test results are shown. Since no indication can be found in the application, that the underlying problem is solved by the examples (or over the whole area claimed respectively), the subject-matter of claims 14-19 clearly lacks an inventive step (Article 33(3) PCT).

**Re Item VI**

**Certain documents cited**

**Certain published documents (Rule 70.10)**

Application No Patent No	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)
EP-A-1 010 751 (D8)	21.06.2000	25.10.1999	14.12.1998

D8 describes bleaching composition for laundry and hard surfaces comprising (a) particulate PAP, (b) polymer (polycarboxylates), (c) xanthum gum (examples 1-4).

**Re Item VII**

**Certain defects in the international application**

The vague statement "incorporated herein by reference" in the description, e.g. on page 3, implies that the subject-matter for which protection is sought may be different to that defined by the claims, thereby resulting in lack of clarity of the claims (Article 6 PCT) when used to interpret them (see the Guidelines, II-4.17).

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**R It m VIII**

**Certain observations on the international application**

The following observations on the clarity of the claims and description or on the question whether the claims are fully supported by the description are made:

1. The functional term **a polymeric stabilization system** used in claims 1, 4, 7, 14 and 18 is vague and unclear and leaves the reader in doubt as to the meaning of the technical features to which it refers, thereby rendering the definition of the subject-matter of said claims unclear (Article 6 PCT). The term thereby attempts to define the subject-matter in terms of the result to be achieved which merely amounts to a statement of the underlying problem (PCT-Guidelines III-4.7). However, not even the result to be achieved is quite clear from this wording, since it is not clear whether a physical or chemical stabilization is to be achieved by the polymeric system.
  
2. Claims 1, 13 and 14 are not supported by the description as required by Article 6 PCT, as their scope is broader than justified by the description in view of page 2, last paragraph (above "the summary of the invention") and in view of the examples.